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ODIN PETROIL S.A. EN REESTRUCTURACIÓN
CR 57A 30-399 SEC TRONCAL DEL CARIBE - SAN FRANCISCO.
470001, SANTA MARTA
Colombia

Attention of : Mr. J. Martinez

Analysis Report

Report number	:	**15300/00011096.6.1/L/22**	Submitted date	:	2022-09-06
Main Object	:	Odin Petroil / Análisis Laboratorio	Sample submitted at	:	Saybolt Colombia - Cartagena
Report Date	:	2022-09-07	Date received	:	2022-09-06
Date of issue	:	2022-09-07	Date completed	:	2022-09-07
Sample object	:	Muestra 06-09-22	Sample number	:	13670696
Sample type	:	Submitted			
Sample submitted as	:	Petroil 300 VLSFO ISO 8217/2017			
Marked	:	Petroil 300 VLSFO ISO 8217/2017			

NAME	METHOD	UNIT	RESULT
API Gravity at 60 ºF	ASTM D 1298-12b (2017)	°API	29.2
Density at 15 °C	ASTM D 1298-12b (2017)	kg/L	880.0
Relative Density at 60/60 °F	ASTM D 1298-12b (2017)	-	0.8805
Total Sulfur Content	ASTM D 4294-21	% m/m	0.352
Kinematic Viscosity at 50 °C	ASTM D 445-21e1	mm^2/s	5.675
Accelerated Total Sediment by Hot Filtration - Proc. B	IP 390/11(2017)	mass %	0.03
Water by Distillation	ASTM D 95-13(18)	% v/v	0.1
CCAI	ISO 8217 (Annex F):2017	-	811.6
Flash Point (PM) - Procedure B	ASTM D 93-20	°C	72.0
Pour Point	ASTM D 97-17b	°C	<-33
Ash Content	ASTM D 482-19	% m/m	0.027
Compatibility	ASTM D 4740-20	-	1
Vanadium (V) - Procedure B	ASTM D 5863-00a (2016)	mg/kg	18
Aluminum (Al) - Method B	ASTM D 5184-12(2017)	mg/kg	15
Silicon (Si) - Method B	ASTM D 5184-12(2017)	mg/kg	19
Aluminum plus Silicon	ASTM D 5184-12(2017)	mg/kg	34
Heat of Combustion	ASTM D 4868-17		
Gross Heat of Combustion		Btu/lb	19315
Net Heat of Combustion		Btu/lb	18157

Signed by: Ronald Vargas Barrios - Laboratory Supervisor I
Issued by: Saybolt de Colombia SAS
Place and date of issue: Cartagena - 2022-09-07